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# WORK IN ABDOMINAL AND PELVIC SURGERY.

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# WORK IN ABDOMINAL AND PELVIC SURGERY.

By JOSEPH EASTMAN, M. D., Indianapolis.

Up to the time that the *Pittsburgh Medical Review* discontinued the publication of Abdominal Sections by American operators, July, 1888, my laparotomies numbered seventy-five. Since that time I have opened the peritoneal cavity sixty-two times, and thirteen times extirpated the cancerous uterus by the vagina, which of course opens the peritoneal cavity, making a total of one hundred and fifty.* The experience gained in these operations enables me to present a few points which will, I think, be of interest especially to those working in this field.

It is my purpose, first, to give deductions from original research in laparo-and colpohysterectomy, where ocular demonstration and personal experience have impressed me with facts, and driven me to conclusions. Afterwards I shall refer to other abdominal operations which I deem worthy of record.

* The numbers given refer to my total abdominal work, the cases selected and the order in which they appear being for association of such cases as will facilitate the study of the questions I would have discussed. The sub-mucous fibroid, susceptible of enucleaton and extraction by the vagina, is not considered. Those who have been present at my operations will bear witness that I have had ugly fibroids to deal with.

The teaching that a large number of uterine fibroids are not dangerous; that at the menopause they will cease to give trouble, does not seem to accord with the facts as they have come under my observation. Nor has it occurred to me that my cases were at all suited to the much-lauded treatment by electricity, or to the other remedy, the removal of the appendages.

That a large number of fibroid tumors require treatment has within a few years been conceded by all advancing gynecologists. Some are claiming much for electricity, while others would rely mostly on surgical methods of cure. The latter class are divided as to whether the pedicle in hysterectomy should be left within the peritoneal cavity, or fastened in the lower angle of the wound. Can there be a cut-and-dried method? Should not each case demand a law unto itself? This being true, the question, how would you treat a fibroid tumor? must be met with another query, what kind of a tumor would you have me treat? The question, how would you treat the pedicle in removing fibroid tumors? must be met with the query, what kind of a pedicle is to be treated? These thoughts have come to me while removing more than a score of fibroid tumors by laparotomy. When I had treated two or three I thought one method sufficient for all.

A showing of favorable statistics is entirely foreign to the object of this paper, in so far as fibromectomy is concerned. The

cases reported, and the division of the same into the three classes, is for the purpose of establishing new, or improving on the old methods of operating, with an abiding faith that in the near future the experienced operator will deal with the different varieties of fibroid tumors, showing a fatality little greater than attends his work in ovariotomy.

SUB-SEROUS FIBROIDS.

As some of these have a large base of attachment, electricity might do some good; others have small pedicle, uterine contractions making it still smaller and capable of carrying less blood to feed the tumor. In such cases surgical treatment is very successful, as the following six cases, where a good pedicle was obtained above the uterus, will show.

CASE 11. From Peru, Ind., aged forty-six years. She had been tapped once, and three gallons of fluid drawn from her abdomen. When I saw her she was already poisoned by sepsis; pulse 140, temperature 103° F. I was asked to make an exploratory incision, and found a tumor weighing twenty-two pounds, displacing the pelvic viscera, and in an advanced state of decomposition. When I had seized the tumor with my hand, my finger pierced it dragging away a rotten piece, pus dripping as I raised it up. She lived only twenty-four hours. The lessened blood supply incident to the approaching menopause, together with the small pedicle, were doubt-

less the causes of the disintegration of the tumor. To my mind, electricity would at any time have hastened these changes. Removal of the appendages would have been more dangerous than the removal of the tumor; whereas, if an operation had been made even two months before, life might have been saved, for the pedicle was small. The uterus need not have been disturbed, its cavity not being deeper than four inches. The tumor was exhibited at the Marion County Medical Society in 1885. Lawyers sometimes recall a witness, so I have reported this case a second time.

Case 33. Mrs. A., aged forty-two years. Living near Augusta Station, Ind. Operation July 27, 1887. Multiple sub-serous fibroid tumor of the uterus; weight seven pounds. Made pedicle above fundus of the uterus, quilting with cobbler's stitch; very little muscular tissue included in the stitches. In this case the ovaries and tubes were a disorganized mass; their separate removal was unadvisable, as the hemorrhage was increasing to a dangerous degree. Patient in good health January 1, 1890.

Case 58. Mrs. P., aged fifty-two years. Referred by Dr. H. J. Hall, of Franklin, Ind. Noticed tumor six months. Operation March 12, 1888. Sub serous fibroid of the uterus; weight eight pounds. Made pedicle above uterus, quilting with cobbler's stitch. The ligatures included a mass of muscular tissue one and a half inches in diameter. Drain-

age tube kept in for four weeks, during which time the ligatures escaped through the tube. The second operation on this woman, eight months later, gives valuable experience, and is next in order.

Case 85. Mrs. P., aged fifty-two years. Patient received intense strain of abdomen while driving frightened horse over railroad tracks, followed by pain, swelling and inflammation in the cicatrix of former operation, which yielded to medical treatment so far as the general symptoms were concerned; but a tumor as large as one's fist rapidly developed in and beneath the cicatrix.

Abdominal section, Nov. 13, 1888, revealed inflammatory tumor extending from the bottom of Douglas's cul-de-sac to abdominal cicatrix, adherent to pedicle from which former tumor had been removed, and evidently composed of the exudate which nature always places around the drainage tube, when the same is allowed to remain more than one week. All the inflammatory exudate was removed, including much of the abdominal wall around cicatrix. This case teaches me the fallacy of dropping a large pedicle within the abdomen. This pedicle contained much muscular tissue, requiring five or six links of cobbler's stitch to control the hemorrhage. The lesson I got from the opening of the abdomen the second time settled forever, so far as I am concerned, the question of intraperitoneal treatment of the pedicle in supravaginal hysterectomy. A method which

pleased me very much in my first hysterectomy; for if it is true that nature unites abdominal wound to pedicle, by inflammatory exudate around the drainage tube, is it not a suggestion that the surgeon should save all this effort on the part of nature by treating muscular pedicle extra-peritoneally? Patient has made a complete recovery.

Case 59. Mrs. M., age twenty-seven years. Operation May 3, 1888. Referred by Dr. J. T. Chenoweth, Winchester, Ind. Six pound sub-serous fibroid of the uterus. First noticed tumor eight months previous, after birth of child. Quilted pedicle above fundus of uterus. Very little muscular tissue included in the ligatures; hence they were encapsulated, as we never heard from them afterwards. Patient made a good recovery.

Case 65. Mrs. J., aged sixty-two years. Referred by Dr. Mathews, Carlisle, Ind. Had noticed tumor for twelve years. For the past year patient suffered from pelvic tenesmus to the extent that she demanded relief. Operation April 24, 1888. Sub-serous fibroid of the uterus, weight five pounds. Pedicle stitched with cobbler's stitch — very little muscular tissue. Ligatures not heard from. Patient made complete recovery.

### SUPRA-VAGINAL HYSTERECTOMY.

In the following ten cases of interstitial and multiple fibroid tumors, a pedicle could be formed from the neck of the uterus. In most of the cases where I treated the pedicle

externally the result, so far as the pedicle was concerned, was entirely satisfactory. The result in some of the cases treated intraperitoneally was satisfactory; in others it was such as to forbid me ever fastening a muscular pedicle in the peritoneal cavity again in any manner or under any circumstances.

Case 25. Mrs. W., aged thirty-five years. Referred by Dr. Blue. Operation February 3, 1887. Supra-vaginal hysterectomy. Ovaries and tubes first tied off. Nine pound interstitial fibroid tumor of the uterus. Dropped the pedicle back into the abdominal cavity. Patient had slight temperature for months before the operation. She said tumor was getting softer. Patient at this date well and at work.

Case 76. Mrs. M., aged forty-four years. Referred by Dr. Chenoweth, of Windsor, Ind. Patient becoming hectic, as evidenced by color and elevation of temperature. Operation September 8, 1888. Six pound fibroid of anterior wall of uterus. First tied off ovaries and tubes; then removed tumor by supra-vaginal hysterectomy. Evidence of old pelvic cellulitis. Ligated and dropped pedicle. Temperature rose to 103° first night. Death in forty-eight hours. In this case the pedicle could not be raised up for extra peritoneal treatment. I am sure the ovaries and tubes had contaminated the pelvic cellular tissue, and in such cases leaving no cervix as in Case 122 is the correct surgical procedure.

Case 76. Miss K., of Irving, Kansas. Ten pound interstitial fibroid of the uterus. Operation October 2, 1888. Tubes and ovaries first tied off. Supra-vaginal hysterectomy; treated pedicle intra-peritoneally; ligatures came through sinus left by drainage tube. Patient returned to her home in Kansas in three weeks. From a letter received not long since, she is able to resume her work as a sewing girl.

Case 82. Miss C., aged thirty-eight years, Sullivan, Ind. Operation October 23, 1888. Patient had been treated a month by electricity. Tumor had been punctured in many places by electric needles, until inflammation had set up, causing septicemia. Electrician becoming alarmed, would not continue his electricity, and told her the tumor must be removed. Supra-vaginal hysterectomy. Drainage tube used. Pedicle dropped into the abdomen, and ligated after Schroeder's method. Rallied well from the operation, and continued to do fairly well for nearly a week, dying from septicemia, which may have existed prior to operation. Patient very unhappy from some cause, often declaring she did not want to live previous to the operation. Tumor weighed ten pounds.

Case 87. Mrs. R., aged forty-five years. Referred by Dr. Ross, Kokomo. Interstitial fibroid of the uterus. Ergot had been effectually used. For a time it seemed to control the hemorrhage, but during the last year it failed to do so, and seemed to disagree with

the patient. The hemorrhage and hectic condition becoming alarming, electricity was advised and given a faithful trial. Positive

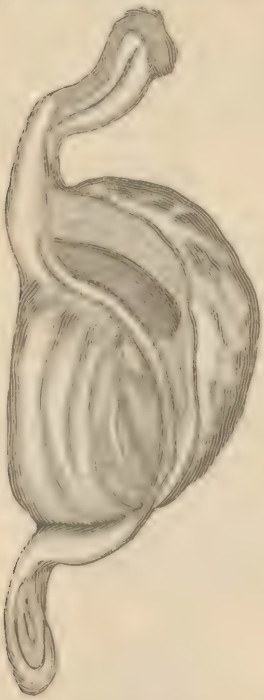

Fig. 1.—Represents Tumor, Case 87.

pole of battery introduced into the uterus, the negative pole with broad sponge over the abdomen. During the two months this treatment was used patient became more sallow

and emaciated; temperature ranging higher and higher, reaching at times 103. Removal of tumor advised as last resort. Abdominal section November 22, 1888. Supra-vaginal hysterectomy. Tubes eight inches in length, and 1½ inches in diameter. Both fallopian tubes folded upon themselves, upon the ovaries, and firmly adherent in Douglas's pouch. Tubes enucleated without rupture, each tube was found to contain half a teacupful of pus. Thorough wash out of abdominal cavity. Drainage tube used. Pedicle treated extra-peritoneally (Bantock's method). Patient at this date, Dec. 21, 1889, the picture of health.

This case encourages my belief that there are cases where ergot is absolutely useless: that a large number of fibroid tumors have been caused by diseased ovaries and tubes, the growth of the tumor completely closing the uterine end of the tubes; the tubes may contain large quantities of pus, this pus may become absorbed, poisoning the tissues of the tumor; and that in cases where there is pus in tubes or tumor, electricity is exceedingly dangerous, and that extirpation gives the patient the best chance of life.

Case 102. Mrs. L., aged forty-four years. Referred by Dr. Newcomer, of Indianapolis. Operation April 2, 1889. Abdominal section. Supra-vaginal hysterectomy. Removed ten pound sub mucous and sub serous fibroid tumor. Used drainage tube. Had no bad symptoms for twelve days, pulse and temperature normal, when she was suddenly attack-

ed with double pneumonitis, and only lived a few hours. From the attending physician, I learned that there were in the city many cases of pneumonitis at the time, a number of them terminating fatally.

Case 103. Mrs. W., aged forty years, Colfax, Iowa. Operation April 6, 1889. Abdominal section. Removed an interstitial fibroid weighing twenty-five pounds. Diameter of

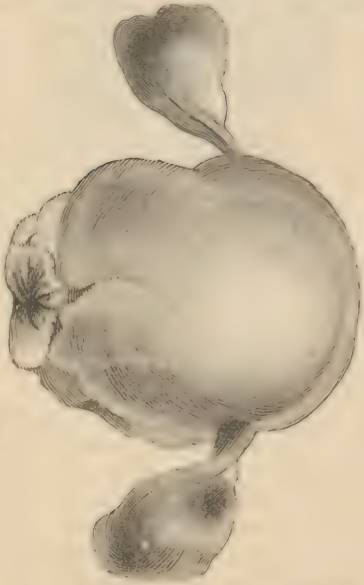

Fig. 2.—Represents Tumor, Case 103.

tumor, after tying off broad ligaments and ovaries where I made pedicle, was six inches.

Fastened the pedicle externally in lower angle of the wound. Used glass drainage tube. Patient made a good recovery. Intra-peritoneal treatment of this pedicle would have been a criminal violation of the law of as p-sis. Total extirpation of the cervix by the aid of my staff would have been better practice, and shortened the period of convalescence at least two weeks.

Case 104. Mrs. S., aged thirty-four years. Referred by Dr. Chavis. Operation April 10, 1889. Abdominal section at patient's residence. First tied off the ovaries and tubes. Supra-vaginal hysterectomy. Nine pound interstitial fibroid of the uterus removed. Pedicle treated externally. Patient sitting up on twelfth day, and made a good recovery.

Case 109. Miss S., operation June 1, 1889. Patient gradually becoming debilitated from profuse and prolonged menstruations, for which ergot and nux vomica were prescribed. This seemed to improve her condition for a time. She then came under my care, I using electricity for several weeks. Her morning temperature from one to two degrees above normal. The hectic condi ion of the patient, coming as I believed from disintegration of the tumor, induced me to remove the same. Abdominal section. First tied off broad ligaments, then removed uterus by supra-vaginal amputation. Tumor weighed seven pounds. Interstitial fibroid. Tumor being cut open, it proved to be two-thirds gangrenous. Ped-

icle treated extra peritoneally. Patient made a good recovery.

Fig. 3. Represents Tumor, 4 lbs. 12 oz.

Case 117. Mrs. F., under care of Dr. Yoke, of Bridgeport, Ind. Operation one of emergency, July 29, 1889. First saw the patient twenty-four hours before operation. Temperature had risen that morning to 103°, pulse to 125. Gave directions to use such means as would reduce temperature if the same were possible, and report to me at 3 A. M. the next

morning. Patient showed no reduction of temperature, other symptoms becoming more critical. Visited patient, prepared to operate. My suspicions that her tumor was gangrenous were fully confirmed by the patient's condition. After a hurried consultation with Drs. Yoke and Pantzer we decided to give patient the ghost of a chance, removal of her tumor offered. Pulse 152, temperature 104. She took ether well, pulse gained if any change at all. Tumor removed in ten minutes, and found to be a pulpy, gangrenous mass, weighing twelve pounds. She lived but a few hours, the ante-mortem examination not shortening her life. This woman had taken ergot for hemorrhage, but from the history of her case, elevation of temperature, etc., gangrene was present before the ergot was given.

In the following six cases extirpation of the internal generative organs entire was advisable, including the uterine cervix, though not done in all:

Case 81. Age thirty; colored. Referred by Dr. C. W. Frink. Operation one of emergency, October 19th, 1888. Patient hectic. Supra-vaginal hysterectomy. Found fallopian tube one and one half inches in diameter and five inches in length, containing one half teacupful of pus As much more pus was found in left broad ligament. Tube removed with tumor. Rallied well from the operation, dying on the third day. Pedicle was treated externally. Tumor was as large as double fist. Cervix was not, but should

have been extirpated, as in Case 122, making complete vaginal drainage.

Case 119. Mrs. W., operation August 24, 1889. Referred by Dr. Chavis. Patient had peritonitis six weeks before and came near death as a result; tumor was adherent to anterior surface of abdomen, to several coils of intestine. Tubes tied off, and pedicle formed and fastened in lower angle of abdominal wound. Several pus cavities found in tumor and near where wire constricted pedicle. Patient died on fifth day. Pedicle was found to be gangrenous below constriction of wire. This cervix should have been extirpated according to method in Case 122.

NEW METHOD FOR HYSTERECTOMY.

Case 122. Mrs. P., referred by Dr. Chavis. From experience in Case 119 I determined to leave no pedicle to become gangrenous, to slough, to bleed, and to furnish septic material to contaminate the peritoneal cavity. Having cut and tied my way up around the cervix in thirteen extirpations of the uterus for cancer, I was confident I could find my way from above downwards, avoiding ureters and bladder. The cervix has been removed a few times in New York, but no hysterectomy staff has been used so far as I know. Where, as in this case, the woman is very fat, and has a deep pelvis, the work would be very difficult if not dangerous without the staff. In this case it became evident that fixing the pedicle in the lower angle of the wound was

not advisable. I used a Simon's retractor to lift the cervix, by elevating the floor of Douglas's cul-de sac. From my familiarity with the parts, gained in the cancer operations, I found little difficulty in removing the cervix entire, then bringing ligatures down through wound into vagina I had complete capillary drainage. I also added a rubber drainage tube to make sure of a good outflow of all fluid used in washing the peritoneal cavity. This patient made so good a record that I was induced to still further perfect the method by having a hysterectomy staff made, which I have since used in three cases.

The staff is passed up the vagina by an assistant, and carried behind the cervix; then by depressing the handle, the grooved end is made to lift the floor of Douglas's cul-de sac well up towards the abdominal wound. A clip with sharp pointed scissors finds the groove. The operator then inserts his finger and begins to stitch and cut around the cervix, avoiding ureters and bladder. I also use this staff to open cul-de-sac for insertion of drainage tube, where vaginal drainage is preferred.

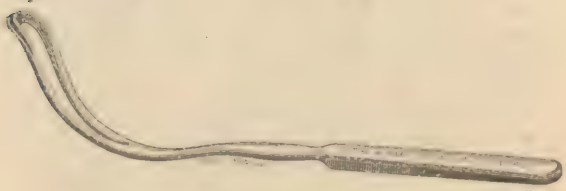

Fig. 4.—Hysterectomy Staff.

Case 123. Mrs. C. referred by Dr. Prunk. Operation October 1, 1889. Patient extremely emaciated and anemic from loss of blood. Incision long enough to lift out seven pound interstitial fibroid. Ovaries and tubes tied off with cobbler's stitch. Strong ligature placed around neck of tumor. Uterus amputated above vagina. Staff inserted behind cervix, raising floor of Douglas's cul-de-sac well up above intestines into the abdominal wound, cutting onto staff, then ligating and cutting until the entire cervix was removed. Put ligatures, which had been left long, down through opening into vagina, also placing a rubber drainage tube. Patient has made a good recovery. In my judgment, this woman could not have endured the tedious convalescence attending cases where the pedicle is fixed in the lower angle of the wound.

Case 131. Mrs. B., age forty years. One of the most extreme cases of hystero-neuroses I have had any knowledge of. Evidenced by maniacal headaches, especially before and following her scanty and prolonged menstruations. Her mother, with similar symptoms, had become insane at about the same age. Physical examination revealed retroverted uterus so extreme that the fundus nearly closed the vagina, adding vaginismus and dysparunia to the suffering. She had been treated by eminent gynecologists and neurologists. The vagina becoming more and more intolerant of any kind of support or treatment. Fully concurring in the statement of

Dr. Englemann, of St. Louis, that a large number of the neuroses are of uterine, not ovarian origin. I saw little encouragement in removing the uterine appendagss to bring on the menopause. Feeling confident that I could, with the aid of my hysterectomy staff, lift up and remove the uterus, together with the ovaries and tubes, with little danger, I made the operation as heretofore described, November 17, 1889, Dr. Pantzer, of this city, assisting. The uterus was adherent, and after removal showed a decided fibroid mass attached to posterior wall of fundus, caused as I believed by the great length of time the retroversion had existed. There was a history of a fall fifteen years ago, which may have caused the displacement. Venous congestion, increase of fibrous tissue, the latter becoming more circumscribed, forming the so called fibrous enlargement. Patient has made a good recovery from the operation, and is now under treatment for her nervous system.

The satisfactory mechanical execution of this operation encourages me in the belief, that the comparatively small uterus can be removed by abdominal section, with such safety that in similar cases where the patient has been for years on the border line between sanity and insanity, clearly from uterine causes, I should unhesitatingly recommend the operation. Again, as the fallopian tubes are so similar in structure to the uterus, both having been developed from the tubes of Muller, the removal of the cancerous uterus

by this method, as it first ties off tubes, might give better results. In one of my cases where I extirpated the uterus by the vagina, the disease is returning, as I think, in the remnant of the fallopian tube left beyond the pinch of the forceps.

I have divided the cases of fibroid tumors reported in this paper into three classes, from which I draw the following conclusions:

*First.* That in treating sub serous tumors, where a pedicle containing little muscular tissue can be made above uterus, leaving ovaries and tubes undisturbed, the pedicle may be dropped as in ovariotomy. Where a pedicle contains so much muscular tissue that ligatures can not become encapsulated, but are or may be cast off, it is bad intra-peritoneal surgery to leave such pedicle in the abdomen.

*Second.* Where the neck of the uterus remains small, abdomen not too fat, supra-vaginal hysterectomy, ovaries and tubes tied off, with the pedicle fastened in the lower angle of the wound, according to Bantock's method, is a very satisfactory operation.

*Third.* Where the neck of the uterus is so deformed by fibroid growth, that it is inexpedient to make a pedicle out of the same; or where decay, pus cavities, gangrene, fat abdomen, etc., are present, extirpation of the entire cervix, according to the method described in Case 122, and perfected by my hysterectomy staff, as used in Case 123, give results to me as satisfactory as I have been

able to obtain in any surgical operation, and would seem to leave little to be desired by way of satisfactory treatment of a class of uterine fibroids, heretofore defying successful management by our best surgical methods.

*Fourth.* I am of the opinion that diseased ovaries and tubes stand in positive and important causative relation to fibroid tumors. Hence, where electricity is to be used, an exploratory laparatomy should, in some cases, precede the battery, that the existence of pus accumulations in tubes or pelvis could be determined; that the dangers of electricity may be reduced to the minimum.

### VAGINAL HYSTERECTOMY.

In the thirteen cases where I have made a total extirpation of the uterus by the vagina, I have had three deaths, two of them occurring within forty-six hours, the third on the seventh day The last case died from septic peritonitis, which increased personal experience could, as I believe, prevent. In the other two cases the disease had advanced too far, having extended well into the broad ligaments. I believe, however, with Kaltenbach that even in bad cases this operation should be undertaken and completed, where it is technically possible. I have in this line of operating developed a method of my own. Having, through the kindness of Dr. Bell, obtained a full report of Kaltenbach's method, I tried it in three cases and found a decided advantage with the ligature in this, it brings

the broad ligaments down into the vagina, and enables you to better close the peritoneal cavity than you can do where many forceps are used. The greatest objection to the ligatures is the length of time it requires to complete the operation. In two instances I have been compelled to stop ligating and cutting, the patient becoming weak from prolonged effort, and complete the operation quickly with the forceps. I find it very difficult also to remove the ligatures; in some cases they have remained for weeks, keeping up more or less discharge and irritation. This latter objection is trivial as compared to the objectional method of having the stumps of the broad ligaments left up within the peritoneal cavity, to unload septic material as soon as the forceps are removed. This must always be the case in any forcipressure which does not narrow the ligaments before compressing them. The following method seems to fulfill all the indications better than any other:

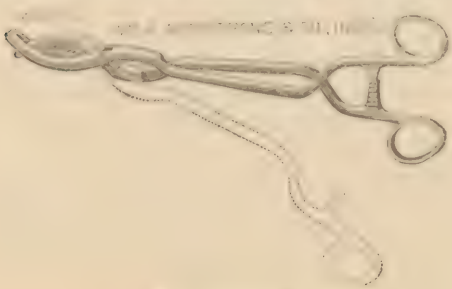

Fig. 5.—Forceps.

Fig. 6.—Hook Needle.

*Eastman's Broad Ligament Forceps used in Vaginal Hysterectomy.*

The uterus having been separated from the bladder, and Douglas's cul-de sac having been opened, a strong ligature is passed with the "hook needle,"* (cautiously avoiding the intestines) around ligaments; this ligature being tied, the ligaments are constricted to a round mass. The operator then passes the index finger of one hand in front, the index of the other hand behind the uterus, when the assistant easily slides these forceps, guided by the operator's fingers, around ligaments and locks them. The same is repeated on the opposite side and the ligaments severed, leaving the forceps to be tied together side by side, as one forceps. The advantages claimed are:

*First.* That by narrowing the ligaments their stumps are brought down into the vagina, so that the peritoneal cavity can be closed above the forceps.

*Second.* Only two forceps are necessary.

*Third.* In the inventor's hands the operation has been done in a very few moments.

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* See Fig. 6.

without the patient losing a half ounce of blood; which, in an experience of thirteen operations, he has not been able to do with other forceps.

SEVEN CHOLELITHOTOMIES.

Of the seven operations I have made on the gall bladder, five of the women were cured. In three of the cases there was no evidence of jaundice in the eye or on the skin. In the case of Mrs. Haynes, Miami, Ind., there were no symptoms whatever, except a tumor about the size of a hen's egg; and yet since the operation, in October, 1889, she has gained twenty-five pounds in weight and finds herself much stronger. In all the cases there was obstruction of the cystic duct by gall stones. In two cases the larger stone obstructing the cystic duct was down near the common duct, doubtless nearly closing it by pressure, as in these two cases the liver was much enlarged, twice its normal size, and rapidly shrunk after the operation. I report the two fatal cases, they being of more interest to the profession.

Case 130, Mrs. S. A history of hepatic trouble twenty-two years ago. Suffered more or less pain in epigastric region ever since. Was seen in consultation with Dr. Bell one week before operation. Patient very markedly jaundiced. Been confined to bed four weeks. Frequent vomiting, bowels very inactive, with no appearance of gall in the discharges. Patient's abdomen very fat. Tumor nearly as

large as goose egg could be felt midway between gall bladder and umbilicus. Advised exploratory laparotomy with a possible hope of finding obstructed gall ducts.

Made exploratory laparotomy November 9, 1889. Incision five inches in length made over the tumor. Immense quantity of fat filling the wound, an elliptical piece of fat was taken out from both sides of the wound. Abdomen opened, tumor brought well up into the wound with vulcella, it proved to be gall bladder adherent to mesentery over its entire surface. Mesentery peeled off; trocar inserted in gall bladder, a teacupful of muco purulent substance ran out containing numerous fragments of gall stones. Passing dull curette well down into cystic duct, succeeded in detaching gall stone the size of large bean. Then using long forceps, succeeded in breaking up another stone apparently in the common duct. Washed out wound, put glass drainage tube into the wound beside the gall bladder, the same reaching nearly down to the duodenum. Inserted a rubber drainage tube inside of gall bladder, then stitching gall bladder to abdominal peritoneum. The patient left table with little shock; pulse 90. Died on the fourth day.

The evidence gleaned in this case convinces me that this woman was poisoned by cholesterine long before the operation; that the enlarged liver, by its failure to elaborate the products of nitrogenous foods, had caused secondary renal disease. The immediate cause

of death was, as I believe, uremia. The operation was one of emergency. Still an operation would have been expedient months before and would, as I believe, have been attended with better results. In my seventh case death occurred on the ninth day from thoracic, not abdominal causes. Gall passed through intestines and drainage tube, wound was perfectly healed, abdomen flat, discharges from the bowels were normal in consistence, and appearance convincing me that the peritoneal cavity was undisturbed after she was seized with the prevailing epidemic of influenza.

NEPHRECTOMY FOR FIBROID—SUCCESSFUL.

Case 129. Mrs. D., aged forty nine years. Referred by Dr. Wands. Operation November 6, 1889. Large nodular tumor in right hypochondrium. Symptoms pointed to cancer of liver. Incision first made three inches long, then extended to eight. Introduced the finger, and found tumor adherent in every direction. Separated the adhesions from the abdominal wall, finding that the tumor developed from the region of the right kidney behind the peritoneum. Tearing open the peritoneum, separating the extensive adhesions, dealing with many bleeding points and with great difficulty I was enabled to lift the tumor out of its bed, finding that it developed from the lower half of the right kidney. I ligated the renal arteries with strong iron dyed silk. Removed kidney with the tumor.

I then plunged a pair of sharp pointed scissors through the back at the most dependent point of the cavity from which I removed the tumor, expanding them large enough to introduce the finger; then drew a large rubber drainage tube through the opening, stitching the tube to the external integument. Put a glass drainage tube in abdominal wound, having it extend well down into the cavity.

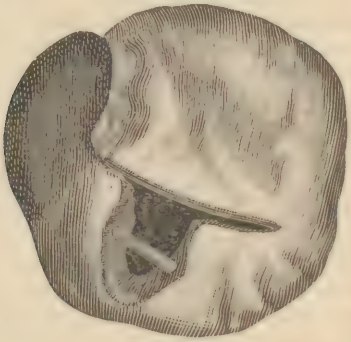

Fig. 7.—Represents Tumor, Case 129.

Closed the wound with silkworm gut. The patient left the table with pulse of 90. Dr. William Wands kindly assisted me in the operation. The senior class of the College of Physicians and Surgeons also present. The tumor weighed nine pounds, and a cavity connected with the pelvis of the kidney contained three pints of purulent urine. Experts class the tumor as "rhabda myoma," the so called *striped* myo sarcoma. (See Greig

Smith, p. 496.) Patient and tumor exhibited to Marion County Medical Society, January 29, 1889.

*Two Cases of Ventral Fixation of Uterus. (Kelley's Method.)*

Case 86. Miss K., referred by Dr. Jenkins, Waldron, Ind. Operation, laparotomy at patient's home near Waldron, Shelby county, Nov. 20, 1888. Extreme pelvic tenesmus. Evidence of old pelvic peritonitis. Prolapsed ovaries and tubes, with complete retroversion of uterus. Numerous adhesions of the uterus broken up, ovaries and tubes removed. Uterus brought well forward and fixed by ligature in the abdominal wound. Patient recovered, except some evidence of neurasthenia. Some vesical disturbance in consequence of fixation of the womb near the bladder.

Case 88. Mrs. W., age thirty-eight years. Referred by Dr. Heath, of Sharpsville, Ind. Operation December 11, 1888. Symptoms those of old pelvic peritonitis with complete retroversion. Laparotomy; extensive adhesions of all pelvic organs; adhesions separated; tubes and ovaries removed, the former as large as one's thumb, containing at least one half ounce of pus each. Uterus stitched to lower angle of abdominal wound. Patient made a good recovery.

*Case where Abdomen was Opened the Second Time.*

Case 96. Mrs. H., aged fifty-four years.

Operation February 23, 1889. Intestinal obstruction. Hard mass felt in vagina posterior to cervix. Laparotomy at the patient's house. Found ilium adherent to pedicle from which cyst had been removed. (See Case 83.) Liberated adhesions. Used drainage tube. Patient cured. In one other case I have opened up abdomen, broken up adhesions, and drained the cavity the third time, and succeeded in curing the woman. (See Case No. 34.)

*Ovariotomy Record—Fatality less than three per cent.*

In my last thirty-five abdominal sections for ovarian tumors (not removal of uterine appendages), I have had one death, occurring in the case of colored woman with intraligamentous cyst, weighing forty pounds. Two other cases are of interest, and are briefly reported.

*Hysterectomy Added to Ovariotomy.*

Case 113. Mrs. B., age fifty-seven years. Abdomen enlarged equal to full term of pregnancy. Tumor had been gradually forming for three years. Patient extremely debilitated, with history of peritonitis twelve months before. Dr. Jas. D. Maxwell, Jr., of Bloomington, Dr. Jenkins of Waldron, and Drs. Pantzer and Bell of this city, present. On opening the peritoneal cavity a tumor was found adherent over entire surface to abdominal wall. After separating adhesions and evacu-

ating wooden bucket full of fluid from the different cysts, tumor was found to be adherent to seven inches of the descending colon. Separating this as carefully as possible, it left the colon denuded of its serous covering a strip of one and one half inches wide and seven inches in length. This was carefully covered by bringing the peritoneal margins together, it requiring not less than twenty Lembert sutures. Several other adhesions were found to knuckles of small intestines and to mesentery. These were separated and the bleeding points ligated. The sac was then lifted out of the abdominal cavity, the entire uterus, ovaries and tubes forming the only pedicle, the sac having been reflected over the uterus, and having become firmly adherent, especially between the uterus and bladder. Sac separated from uterus, leaving the muscle of the organ bare. Knowing it would be bad surgery to leave such a structure within the peritoneal cavity, I decided to add sudra-vaginal hysterectomy to my ovariotomy, by fixing the pedicle in the lower angle of the wound, and putting in drainage tube. The patient has made an excellent recovery.

Case 125. Mrs. D., Waveland. Operation October 13, 1889. Patient had missed her menstrual period for six months. Abdomen larger than during any former pregnancy. During the last month had had a temperature ranging from 100° in the morning to 103° in the evening. Operation one of emer-

gency at the patient's home in Montgomery county. Opened the abdominal cavity, and removed a putrid ovarian cyst, which together with its contents weighed twelve pounds. As I ligated the pedicle, I noticed the enlarged uterus becoming much smaller. Examining I found a six months' fetus being expelled through the vagina, which from the appearance of the skin had been dead at least ten days. Drs. Dunlavey and Ball, of Waveland, assisted with the operation.

Removals of uterine appendages are so common that I will not refer to my work in this class of cases, except to say that in four of my cases where I have removed the uterine appendages and taken special care to sever tubes as close to uterus as possible, the menstrual flow has continued as before. In two cases I have, by this operation, restored reason to patients who had been in the Insane Asylum. One had been there a year, and is now actively engaged in teaching in our city schools. The names will be given to any professional friend interested in the study of the insane. In three other cases where diseased ovaries seemed to stand in a causative relation to epilepsy, I have by this operation materially improved, if not cured the woman of this terrible malady.